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ORIGINAL ARTICLES.

DIABETES.

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In an article already published, in the MEDICAL AND SURGICAL REPORTER for March 7, 1896, I have indulged in some theorizing regarding the nature of diabetes and have expressed the conviction —not an original one—that, whatever the ultimate cause of the disease, or the lesions by which it is brought about, diabetes is essentially a disease of nitrogenous waste. It is evident that this view is in marked contrast with the conception that diabetes is simply an aggravated form of glycosuria.

Sugar in the urine means sugar in the blood. The latter indicates neither faulty indigestion nor absorption, nor, necessarily, a failure of the glycogenic function of the liver and muscle-cells. The real chemical failure is of the unorganized ferment which normally assists in the oxidation of sugar into carbon dioxid and water. The existence of this ferment has been experimentally proved and its source has been traced to the pancreas which acts, in this particular, as a ductless gland. The absence of the ferment, therefore, depends on a suspension of part of the pancreatic function. This disturbance may depend upon organic lesion, when there is apt to be a disturbance of the ordinary glandular secretion or it may result from deficient sympathetic innervation. This, in turn, may be either functional or due to disease of the abdominal sympathetic ganglia or the center in the medulla so long known as the diabetic center. *A priori*, we must consider the prognosis grave in all cases of organic source, including those in which the pancreas is histologically normal but in which its function is permanently crippled by failure of innervation. If, however, the disease is functional, both as regards the gland and the nervous system, the prognosis ought to be favorable, though the disease is still a serious one and not likely to recover without the most careful treatment.

It is natural to assume that the destruction of nitrogenous compounds in diabetes is a compensatory effort on the part of the liver and associated organs, for, if sugar cannot be oxidized in the body, some other fuel must be added and the relative indigestibility of fats

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precludes their exclusive use. We must acknowledge, however, that this theory is not wholly satisfactory, in that it does not explain the undoubted action of small quantities of carbohydrates in stimulating an excessive formation of sugar from the tissues of the body. If sugar simply failed to oxidize in the blood, and a sacrifice of albuminous compounds were necessary only to make good the deficit of fuel, we should not expect that the ingestion of carbohydrates would have a positively harmful effect.

The following case illustrates, I believe, the cure of a case of diabetes, falling under the most favorable category, functional nervous failure in a normal pancreas. Mrs. M., Italian housewife, aged forty-seven, consulted, me on January 25, 1896, on account of a progressive failure of strength and relative emaciation, though she was still a fleshy woman. Two years ago, she was very much excited by family troubles, involving a particularly bitter altercation about some property. Some forty days after this excitement, she began to notice increased thirst, distention of the abdomen, lassitude and pain in the stomach. It is altogether likely that the urine was increased, but she has no positive recollection about this point till some time later. For nearly two years, she has noticed an enormous increase in the urine, so that she has had to empty the bladder every half-hour or so during the day and she has actually measured two gallons passed in twenty-four hours, without attempting to save the whole quantity. Of water she drinks two or three gallons daily. She has had, and still presents, numerous small boils and sores on the arms, legs, chest and abdomen. No local irritation has been caused by the urine. The tongue is dry and covered with white fur. The patient weighs between seventy and eighty kilograms; she has lost considerably but does not know the exact amount.

On the following day, the analyses of the urine and physical examination were made. Urine for twenty-four hours, between 6,000 and 7,000 c.c., light yellow, acid, no albumin nor peptone, trace of indican, no acetone, and, at most, a trace of diacetic acid. Specific gravity, 1,040, corresponding to about 500 grams of total solids. This rule of approximation does not, however, apply to cases of diabetes. With hydrochloric acid there was some precipitate of uric acid, but not enough to weigh. Urea, 144 grams (normal for a woman of her size and comparatively inactive life, about 25 grams); sugar, 300 grams (fermentation method of Einhorn).

The heart was normal, the lungs showed no physical signs, but there was a slight cough and expectoration from catarrh of the trachea and, perhaps, of the larger bronchial tubes. The stomach was normal by auscultatory percussion, but showed the transverse axis common in fleshy and flabby women. There was no complaint to justify a chemical examination of the stomach contents. The liver reached from the upper border of the fifth rib to one centimeter above the costal arch, in the nipple line. (Normal extent by auscultatory percussion, from fourth rib to costal margin). Patellar reflexes absent, but other signs of tabes were absent. I would like to observe in passing that the frequency of the association of diabetes and tabes has been much exaggerated.

The treatment ordered included hydrochloric acid, as an aid to albuminoid digestion and a spur to the liver; strontium lactate, from mere empiricism; and a diet of eggs and butter for a few days.

On February 3d the patient reported that she was drinking only four glassfuls of water (about 2,000 c.c.) daily and passing correspondingly less urine. On account of an exacerbation of the cough, ammonium chlorid was given. Meat was allowed in order to vary the diet, but, aside from the slight amount in meat, no carbohydrates were admitted. On the next day the urine was again examined, with the following encouraging result: Quantity for twenty-four hours, 3,000 c.c.; specific gravity, 1,034, corresponding to about 200 grams of solids. Urea, 81 grams; sugar, 75 grams.

On February 20th the patient reported subjective improvement, and stated that she had passed only about a quart of urine in the last twenty-four hours. Two days later the urine amounted to 1,500 c.c. of a specific gravity of 1,021, corresponding to sixty grams of solids.

The alkaline solution of cupric sulphate in potassium hydrate indicated a mere trace of sugar. Picro-nitric acid and potassium hydrate gave a dark claret color, whereas even a minute quantity of sugar produces almost a blackness of the solution. Indican was present, but not to excess, in spite of the relative concentration of the urine. Sugar by the fermentation test amounted to not quite one-half per cent., or about seven grams. (There must have been some sugar in the yeast, or other source of gas.) The urea was forty-five grams.

On March 12th the patient became alarmed at a precipitate of urates, and brought a single sample of urine to the office. The urine was normal, except for the urates, there being no sugar by either the copper or picro-nitric acid test. Here, according to the saccharine view of diabetes, one might have been tempted to register a cure, especially as inquiry elicited the fact that the patient had taken milk, a little bread, and some vegetables, all of which had been prohibited. But, as already stated, my conception of diabetes is that the mental and physical depression, the tendency to nervous degeneration, to tuberculosis and furunculosis, are due to an inordinate waste of proteid matter, either of food or of tissue, or of both, and not primarily to the increase of sugar in the general circulation. On the next day, therefore, a twenty-four hour sample of urine was examined, with the following result: Total quantity, 1,000 c.c., free from sugar and containing only a trace of indican, explained by gastro-intestinal fermentation. There were thirty-two grams of urea, a perfectly normal quantity.

The question now presented itself, Was the diabetes merely held in check by the restriction of diet—which had not been rigidly obeyed—and the continued sedative or alterative action of the strontium lactate, or had a cure really been accomplished? In order to determine this point, the medicine was discontinued, the patient was allowed any food she chose, and she was directed to return at the end of a week, with a twenty-four hour sample of urine.

It should be stated that no effort had been made at feeding with butter, cream, etc., as the patient had a thick padding of subcutaneous fat, although muscular atrophy had taken place. With an abundance of inutilized fat already at hand, it seemed unwise to run the risk of destroying the appetite and digestive powers by urging the patient to eat more fat than she naturally craved.

Meantime, the patient was gaining in weight and strength, and she felt so much improved that she declared herself practically well and postponed further examination from time to time. Finally, on May 2d, seven weeks instead of seven days after the last consultation, she saved the urine for twenty-four hours and submitted it for examination, as a favor to the writer, while disclaiming any further need for treatment. The result was all that could have been desired. Total quantity, 900 c.c., yellowish, beginning to decompose; specific gravity, 1016, corresponding to twenty-nine grams of solids. No sugar by the picro-nitric acid test, no indican nor albumin. Urea, 24.3 grams. As already mentioned, the specific gravity test for total solids is, at best, an approximation, and it fails utterly if decomposition has begun or if a large amount of sugar or of any other single ingredient is present. Probably in this instance the renal elimination of solids, aside from urea, was very low, as the day was warm and the patient had perspired freely. In such instances the nitrogenous waste still takes place through the kidneys, while salines are eliminated through the skin. The patient having been for two months on unrestricted diet, without any symptoms of diabetes and the urine being free from sugar and indicating no excess of nitrogenous waste, she was now discharged cured.

A Halcyon Time for Doctors.

Physician of the New School (after turning X rays on the patient)—Your case is a somewhat complicated one. There is a slight trouble with your left lung, and I observe enlargement of the liver and fatty degeneration of the heart. Kindly hand me that $2.54 in your right-hand trousers pocket and I will prescribe for you.—*Puck.*

ERYTHEMA NODOSUM TRACHEALIS.*

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It may seem peculiar that another name should be added to the already overcrowded nomenclature of disease, a fact which I readily admit, but erythema nodosum trachealis is not a disease *per se*, being only a symptom of considerable importance when it accompanies that particular lesion of the skin. The name was chosen to designate a condition which is extremely dangerous to life, if it be allowed to go unrecognized, because the symptoms might be treated lightly, as there may be but slight evidence in the mouth, throat and pharynx, and none at all in the trachea.

A number of diseases of the skin affect the mucous membranes also, but they are so common that they are not easily overlooked. These throat symptoms are usually considered as secondary only, the lesion seldom being severe enough to cause suffocation. When the trachea becomes affected with erythema nodosum, however, it is well to be on guard, since dangerous symptoms may arise without much warning, as the following case will show:—

Early Monday morning, April 20, 1896, I was hastily summoned to see Mr. G., who was suffocating. On my arrival he was found sitting in a chair breathing with difficulty, indicating some obstruction in the larynx. I was informed by Dr. Gibson that the larynx was clear and that the lesion must be in the trachea. As the patient was in pretty good condition, I examined the mouth, pharynx and larynx. The tongue was coated and showed two or three erosions underneath, otherwise it was normal. The pharynx was congested; there was mild laryngitis, with slight edema of the false cords, but not sufficient to hide the true cords entirely, which were red and somewhat thickened; the voice was quite clear. The left arytenoid was immobile and somewhat thickened; the right crossed over beyond the median line during phonation; the subglottic tissue was plainly visible, but leaving sufficient room for breathing purposes.

Dr. Wyckoff, the family physician, and Dr. Gibson had labored with the patient for several hours, applying cocaine and giving steam inhalations, but affording slight relief. Intubation was proposed, to which the patient readily consented. A twelve-year tube was introduced, but met with obstruction deep down in the trachea; a second trial gave the same result. Then a small adult tube was tried and failed; a large adult tube met a similar result. The tube could be held down, but projected above the epiglottis, affording no perceptible relief. The patient was rapidly growing worse, and the family being very anxious to have something done, I proposed tracheotomy, to which consent was given. While attempting to lead the patient into another room, where a table was prepared, he suddenly collapsed and became unconscious. He was hurriedly carried into the room, but ceased to breathe almost as soon as we reached the table, and the pulse became weak. As no time was to be lost, an incision was made down to the trachea regardless of vessels; a large amount of dark blood escaped, obstructing the field of operation, four or five hemostatics were applied and the finger forced down to the trachea, which was opened large enough to admit the finger and tube. The patient was lifted up by the feet to allow the blood to escape from the trachea, and after half a minute a feeble inspiratory effort was heard, followed shortly by another, and in a few minutes breathing was carried on regularly. The severed veins were then tied and the wound dressed. In half an hour the patient got up and walked to his bed in the next room. He made an uninterrupted recovery. The fourth day the tube was removed and the wound allowed to granulate.

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As there was no apparent reason for the obstruction, and nothing could be seen immediately beyond the subglottic tissue, the case became of more than ordinary interest. Dr. Wyckoff noticed a peculiar eruption over both tibiæ and upon the forearms, which aroused suspicion. The following day the eruption was changed. That day Dr. Grover Wende, the dermatologist, was invited in consultation with Dr. Gibson, the neurologist, Dr. Wyckoff and the writer. Dr. Wende diagnosed the case as erythema nodosum, which is known to affect the mucous membrane of the mouth and pharynx, but has never been mentioned in any text-book or journal as invading the trachea.

The preliminary history of this case might be of some interest. Mr. G., a bookkeeper, aged thirty-five, well built, weight 165 pounds, previous health good, family history good, about April 10th noticed an eruption on his legs, but paid very little attention to it. April 14th he felt some soreness in his throat, and that night had an attack of difficult breathing, which, however, passed off again. Two days later he had a second attack which lasted four hours, or until tracheotomy was performed.

This eruption went through a typical course, producing successive crops, which no doubt was the case in the trachea also, the first obstruction disappearing and a second forming and nearly causing death. Several days before I saw the patient, Dr. Wyckoff noticed the characteristic elevation in the throat.

The disease is supposed to accompany rheumatism and other constitutional affections. This patient had an attack of rheumatism some five years ago. The anchylosis of the left arytenoid was explained by an injury received some fifteen years ago, and which has given him more or less pain ever since.

As the disease, when affecting the trachea, presents such a formidable condition, I thought it might best attract attention if given a proper name of tracheal erythema nodosum.

LAVAGE AS A THERAPEUTIC MEASURE IN DISEASES OF THE STOMACH.*

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In calling attention to lavage as a method of treating certain stomach diseases, I am by no means introducing a new therapeutic measure, but wish to emphasize the importance of a mode of treatment with which all should be familiar. For some years text-books have recommended lavage for certain stomach diseases, particularly dilatation of the stomach, vomiting of cancer and chronic gastritis. None of them that I have read, however, give to this method of treatment that importance and emphasis which the measure in my opinion merits. All of us are aware that a considerable percentage of the cases which come to us for relief are functional and organic diseases of the stomach and intestinal tract. Treatment of these maladies is often discouraging to physician and patient alike, and while in many cases much may be done by judicious medication, proper regulation of diet and thorough mastication of food, the fact remains that medicines in these cases in my own experience have had their limitations. Over two years ago I commenced the use of lavage and have continued to do so since in cases of dyspepsia, chronic gastritis, ulcer of the stomach, vomiting of cancer, and chronic diarrhea.

I regret that I have never preserved notes in regard to my cases, but never expecting to write upon the subject I have not, and can only report in a general way upon the results. In some cases that I wished to treat in this way the patient objected and I was obliged to use more agreeable remedies, but

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usually my patients have submitted pleasantly and sensibly. I use a medium-sized red rubber tube with funnel at one end and of late have purchased them from Otis Clapp, of Providence, at an expense of $1.25 each. The end of the tube is wet with a little warm water carried carefully over the tongue, being careful not to touch its posterior surface, and passed usually at first, with some gagging into the stomach. If the patient is specially sensitive the fauces is sprayed with a two-per-cent. solution of cocaine before introducing the tube; but I have been surprised in several instances, how readily even fastidious women swallowed the tube. After its introduction there is poured through the funnel extremity a pint of warm water containing sometimes a teaspoonful of bicarbonate of soda, sometimes an ounce of listerine, sometimes a teaspoonful of common salt. The tube is now lowered and the contents of the stomach removed by syphonage. This is repeated until the water introduced returns perfectly clear. After assisting the patient a few times in this he readily attends to the matter himself once or twice daily as I direct, usually to commence with before breakfast and before supper.

The *modus operandi* of this treatment of course is largely mechanical. In many functional stomach diseases the food, instead of perfectly digesting, ferments, and irritating gases as well as butyric, lactic and acetic acids are generated. These as well as remnants of imperfectly digested food are removed and the stomach cannot fail to be benefited by the removal of this irritation. In chronic gastritis a great deal of tenacious mucus often envelops the solid food ingested, thus serving the double purpose of impeding the proper peristaltic action of the stomach, and preventing, largely, the action of the gastric juice upon the stomach contents. Lavage by removing this mucus must be a rational and effective measure. As the gastric juice is deficient in these cases, I believe it is an advantage to use instead of the soda bicarbonate a teaspoonful of common salt to the pint of water thus supplying a material out of which gastric juice can be generated.

To my mind lavage is the only sensible and practical method of treating ulcer of the stomach, conjoined, of course, with strict diet and as much rest as can be given that organ. I do not believe, in this disease, that medicines ever have or ever will amount to anything, except as they may be given symptomatically for the relief of pain or nausea.

Many text-books recommend, in this disease, nitrate of silver, bismuth and other remedies, and perhaps if we were able to apply them to the ulcerated surface alone something might be accomplished; but when administered it is exceedingly improbable that they ever reach the diseased surface in sufficient amount to accomplish anything whatever. In this disease more than any other, I believe lavage by removing irritating matter will keep the ulcerated surface in the best possible condition for granulation and cicatrization. I have treated several cases by this method and in each improvement has commenced and continued from the first time I used the treatment. My last case, Mrs. C., was taken in October last with severe pain and tenderness in region of the stomach, with later vomiting and hematemesis. This patient was very fastidious, and for three months I dieted her and treated with medicines, with absolutely no benefit whatever; at the end of this time I had consultation, which confirmed diagnosis and made certain suggestions concerning treatment. Two weeks later, as my patient did not improve, she was induced to use lavage. The tube was very readily introduced, the stomach very thoroughly washed out twice daily, and improvement commenced within forty-eight hours, and has been steady since, although I think this the worst case of the disease I have ever had, and the progress has been interfered with by occasional attacks of gall-stone colic. The patient during a greater part of her illness was absolutely devoid of appetite, declared she could not take either solid or liquid food, and for two months I had her at eight, twelve, four, and eight o'clock daily introduce the tube and an attendant administer through it twelve ounces of lukewarm milk. This was her diet largely, though for several weeks of the time, when the stomach was in the worst condition, the

milk was peptonized. I wish to say here that, in my opinion, the treatment of ulcer of the stomach can be concisely summed up in this—lavage and peptonized milk. When the stomach is exceedingly irritable the rectum can be used for a few days to relieve the stomach and give that organ absolute rest, but I do not believe it is either necessary or desirable to resort to this measure for any considerable length of time.

The obstinate vomiting of cancer has been considerably relieved by me after trying other remedies, in a single case. I have had but this one opportunity to use the tube in this disease.

My experience in treating chronic diarrhea with lavage has been limited to two or three cases. In these the results were encouraging. Comparatively little medicine was given, the patient carefully dieted, taking for the most part those foods which are digested in the stomach, and lavage used to remove any irritating remnant of food which, by its passage over sensitive and diseased mucous membrane, might produce chemical or mechanical irritation.

With this method of treatment in dilatation of the stomach I have had no experience, but I believe it to be the only rational treatment of this condition of a therapeutic nature.

Before closing I wish to say a word in regard to the very great importance of paying special attention to dietetics and the slow and thorough mastication of food in nearly all diseases of the stomach and intestinal tract. One of the best results I ever had in a case of chronic indigestion was secured without medicine by sending the patient to the dentist for a set of artificial teeth. Without attention to these matters any treatment must necessarily be disappointing.

In conclusion I want to say that I do not wish to be understood as advocating lavage for every morbid condition of the gastro-intestinal tract. I do not flaunt in the face of every patient who comes to my office the stomach tube, nor do I believe it a cure-all for these diseases. Properly and judiciously used in the diseases above referred to, I am convinced it is a practical and sensible measure and will not fail in the majority of cases to give gratifying results.

COMMUNICATIONS.

AUTO-INTOXICATION PRODUCING EPILEPTIFORM CONVULSIONS; HYSTERICAL SPASM IN THE MALE; INTESTINAL OBSTRUCTION; APPENDICITIS; PERITONITIS; OPERATION; RECOVERY; RELAPSE IN TYPHOID.*

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I desire to report these cases because of their peculiar interest both from an etiologic and therapeutic standpoint. The first is that of a clergyman, aged fifty, for many years a resident of Texas, in which portion of the country he suffered from a severe attack of yellow fever some years ago, and since which he has never been "the same man," although he has worked as hard and been as active as before. He is well-nourished and apparently in good physical condition, and has been in the habit for a number of years of taking a large amount of daily exercise, often walking from seven to ten miles every day for weeks at a time, with the hope that he might be able to overcome the condition about to be described. Having a ten-

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dency to chronic constipation, which usually requires a careful laxative diet and active laxative medicines to overcome it, the man has hoped that exercise would give him a certain amount of relief. As often as once a week, or even oftener, he suffers from fulness in the head and some dizziness, with a feeling of general malaise and wretchedness, and during this time it requires the greatest force of his will to make any effort, mental or physical. At less frequent intervals, varying from a month to six months or more, he has been seized with much more violent attacks, in which for several days the symptoms such as have just been described persist; while he wakes early in the morning, rises from his bed in a semi-delirious condition, and, if interfered with, is likely to become somewhat violent. In a short time the man passes into a typical epileptiform convulsion, followed by deep sleep and a restoration of consciousness entirely similar to that seen in a person emerging from a true epileptic paroxysm. There is no history of any specific trouble, of any injury, of sunstroke or hereditary tendency, although there is a history of marked nervous debility due to overwork at various times during the past twenty years.

Carefully directed treatment for the purpose of overcoming the nervous exhaustion and of improving the digestion effected little if any result, and the fact that large doses of calomel had on a few occasions seemed to produce temporary improvement, suggested to my mind the possibility that the case might be one of auto-intoxication, somewhat similar to those described by Brieger and some French investigators. Acting on this principle the patient was directed to take a diet as free from fats as possible, and to produce every day by means of a copious draft of Hunyadi water, taken before breakfast, a semi-formed stool. He was also given at the same time a pill composed of extract of chiretta two grains; leptandrin, half a grain; podophyllin, one-fifth grain, euonymin, half a grain; beechwood creasote, half a grain; taken three times a day after meals. During a period of three months he has not only had no return of his epileptiform manifestations, but he has been entirely free from the symptoms of mental and bodily torpor already mentioned; and it would seem evident that by the regulation of the diet the stimulation of the gastro-duodenal glands and the glands opening into the duodenum, as well as by the use of the purgative, certain processes that resulted in the development of animal alkaloids in the intestines were set aside.

The second case was that of a man, aged nineteen, of Irish birth, who was confined to bed because of violent pain in the epigastrium radiating toward the right kidney. He was generally free from the pain during the day until late in the afternoon or in the evening, when it would come on with what he described as frightful intensity, so as to be absolutely unbearable. His tongue was heavily furred and his digestion evidently markedly impaired. He did not, however, possess the appearance of a person who suffered severe pain, nor was there any evidences of impaired nutrition or grave disease. On attempting to examine the abdomen, it was found that both rectus muscles were in a condition of rigid spasm, and when they were touched they developed, particularly the one on the left side, rhythmic contraction which conveyed to the hand an impulse very similar to that produced on deep palpation of the aorta in a person with a thin abdominal wall. The greater the pressure the greater was the response to the spasm. The time of the spasmodic contractions was about sixty per minute. On anesthetizing the patient the spasms ceased entirely, long before ordinary muscular relaxation was produced, and deep abdominal palpation failed to reveal anything abnormal in the belly. Largely for the purpose of producing a mental effect and also with the hope of making an impression upon the condition of the stomach, lavage was instituted. Preliminary examination of the gastric contents revealed a condition of chronic gastric catarrh, with advanced fermentation of the stomach contents and excessive mucus. Persistence in the use of lavage and antiseptic solutions and the regulation of the diet caused entire removal of all the symptoms.

The third case was that of a boy, aged nineteen, who was taken ill on a

Monday night with violent pain in the belly which lasted continuously until I saw him on Tuesday evening at nine o'clock. On examining the belly all the physical signs of a general peritonitis were present. The abdominal wall was hard and knotted, but scaphoid and tender on pressure. The pulse was 154, the respirations fifty-six. The pain was localized in the neighborhood of the diaphragm; there was no increase in tenderness in the right iliac fossa, nor, indeed, could any excessively tender spot be found anywhere in the belly. The bowels were obstinately confined; the urine was secreted in fair quantity, but there was difficulty in passing it, owing to the pain that was produced. Careful rectal examination showed possible tenderness in the right iliac fossa, but this symptom was not sufficiently marked to make a diagnosis of appendicitis justifiable. There was no history of a previous attack of appendicitis, but the patient stated that six months before he had suffered with violent pain in his side, which his physician had called "rheumatism."

As it was evident from the boy's condition that under medicinal treatment death must shortly result and that quickly, a surgical operation was strongly advised after consultation with Dr. W. W. Keen. The patient was at once removed to Jefferson Medical College Hospital and at midnight was operated upon by Dr. J. Chalmers Da Costa. Examination of his heart prior to the operation revealed an exceptionally loud aortic obstructive murmur. As there were no symptoms indicating localized trouble in any portion of the peritoneum, a median incision was made, and almost immediately it was found that the ileum was obstructed in consequence of the intestine having fallen over an old band formed by some previous inflammatory process, and it was supposed that this obstruction was the cause of the apparently universal peritonitis. For the sake of leaving no stone unturned, in view of the obscure character of the case, the appendix was drawn into the opening in the abdomen and was found to be intensely inflamed and bent in coils which were bound together by old and new lymph. The canal in the appendix was also practically obliterated near its junction with the colon. This portion of the bowel contained no foreign body or fecal matter, but it contained some mucus and the mucous membrane was so thickened and hardened as to be almost cartilaginous. The appendix was removed. The operation occupied an hour and a quarter. The patient was put to bed in fully as good a condition as before the operation, the abdominal cavity having been in the meantime thoroughly washed out with hot saline solution. The case progressed favorably until the end of thirty-six hours, when it was thought wise to remove the drainage-tube. Almost immediately after its removal the patient expressed himself as feeling much worse, and began vomiting the peculiar greenish matter characteristic of some cases of peritonitis. The ejecta speedily became stercoraceous in character and in odor, and it was believed that a fatal result impended. The wound was opened and deeply packed with gauze in order to re-establish drainage, and immediately upon this being done the patient markedly improved. He was given by the mouth small quantities of cracked ice over which had been poured white of egg and some brandy for the purpose of relieving the pain and tympanites, and to quiet the nervous restlessness and stimulate the vaso-motor system; he was given a rectal injection of starch-water containing fluid extract of hyoscyamus, five drops twice a day. Following this he passed through a long period of convalescence lasting weeks, and during which there were frequent attacks of violent pain in the belly, with vomiting. At one time the vomiting occurred daily, but ceased when the morphin was withdrawn and the bromids and chloral substituted therefor as hypnotics. At the time of the attacks of pain and vomiting, which occurred after the morphin had been stopped, the surface of the body would become icy cold and covered with sweat, the temperature subnormal, and active treatment was required to prevent fatal collapse, such as the application of heat and the rectal injection of strong, black coffee.

The surgical complication of the case consisted in a gaping of the wound in consequence of the removal of the

stitches and the constant packing with gauze. On one occasion active hemorrhage took place from the denuded surface of a knuckle of intestine which was constantly exposed in the wound. By means of adhesive strips and an abdominal binder and rigid antisepsis the edges of the wound were approximated, became healed, and with the aid of an abdominal belt the patient left the hospital weeks after admission, having gained considerably in weight during the last few weeks of his sojourn.

The entire course of this case is exceedingly interesting, but the points of peculiar interest are the development of general peritonitis from intestinal obstruction; the association therewith of acute appendicitis; the fact that had medicinal measures been relied upon in the absence of distinct indications for an operation, death would certainly have occurred; and, finally, that recovery should have taken place after the characteristic vomiting had been present in a person who already had to contend with marked aortic obstruction. The maintainance of absolute asepsis, so that the edges of the wound at no time became infected, notwithstanding that it had to be dressed daily week after week, speaks well for the care of the attendants and had much to do with the ultimate recovery of the patient.

A man, aged twenty-three, was taken ill with typhoid fever on February 1, 1895. He passed through the characteristic period of four weeks without any symptoms of particular interest, save that he had repeated hemorrhages from the bowel, varying in quantity from a few drams to five ounces. His temperature having been normal for three days, much against my better judgment and because of his constant pleading, I added to his milk-diet a small quantity of broth containing rice in considerable amount. Three hours after taking this meal the temperature rapidly mounted from normal to 104°, and a typical relapse, not a recrudescence, occurred. The tongue again became dry and characteristically coated, the typical typhoid eruption appeared on the abdomen and chest, the diarrhea returned, and the characteristic morning fall and evening rise of temperature, with gradual progression during three weeks back to the normal, followed.

This case is of interest as indicating that a true relapse may follow the ingestion of food, although as a rule when food is given too early, a temporary return of the fever, which is of an irritative type, while it may alarm the physician, does not indicate a true second attack of the disease.

SOME THERAPEUTIC USES OF GUAIACOL.*

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I desire to give my experience, gleaned from bedside observation, of that little-written-about drug, guaiacol.

Its use as a local application for the reduction of temperature was first suggested to me by Dr. J. Solis-Cohen, some two years ago, in a case of tuberculosis which he saw in consultation with me. Its action in this case was so prompt and effective that I pushed the investigation in other diseases, with results herewith summarized.

In September, 1894, when I entered upon my term of service in the Williamsport Hospital, I commenced the use of guaiacol as a local application for the reduction of temperature. In typhoid fever, since then, I have had it applied 864 times—778 times in the hospital, and 86 times in private practice. These applications were made to forty-three different persons, about equally divided between males and females, with wide variation of ages. The greatest number of times it was applied to any single person was 78, and the least number of

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times once. The largest dose was twenty-five drops and the smallest two drops. The greatest reduction of temperature was from 106.8° to 101°, in two hours, by the application of five drops, with a corresponding reduction of the pulse-rate from 136 to 110 per minute, the respirations falling from 36 per minute, to 28. This patient, however, showed very great susceptibility to the drug, as the application of two drops reduced the temperature from 103° to 100.4° in one and one half-hours. A number of special reports were prepared for me by the nurses, of some of the cases in which guaiacol was applied, which may be useful in showing its effect not only upon the temperature but also upon the pulse:

Carrie Horton:

Five drops of guaiacol applied.	Pulse.	Temp.
9.45 P.M.	144	107°
10.20 P.M.	132	104.2°
10.50 P.M.	132	102.2°
Five drops applied.	**Pulse.**	**Temp.**
12.45 P.M.	130	104°
1.30 P.M.	120	100.6°
Five drops applied.	**Pulse.**	**Temp.**
5 A.M.	118	104°
5.30 A.M.	108	102.4°
Five drops applied.	**Pulse.**	**Temp.**
1.25 P.M.	135	104°
2.20 P.M.	130	101.8°

Ada Saxton:

Twenty drops applied.	Pulse.	Temp.
11 A.M.	126	104°
12.30 P.M.	112	101°
3 P.M.	110	100°
4 P.M.	122	99°

Annie Witzman:

Ten drops applied.	Pulse.	Temp.
10 P.M.	130	104.4°
11 P.M.	108	100.6°
12 midnight	105	98.2°
12.30 A.M., slight chill.		
Fifteen drops applied.	**Pulse.**	**Temp.**
12 M.	126	105.2°
1 P.M.	120	101.4°
2 P.M.	106	100.8°
Fifteen drops applied.	**Pulse.**	**Temp.**
10.40 P.M.	156	107°
11.15 P.M.	134	104°
12 midnight	116	102.4°
12.45 A.M.	108	99.8°

It will be noticed that within thirty minutes after the application there was a fall in the temperature, and in most cases a corresponding reduction of the number of heart-pulsations per minute. It is generally asserted that guaiacol is a depressant, and, for this reason, a dangerous remedy in diseases in which the circulation is likely to suffer from long-continued fever. This assertion has not been borne out by my experience. On the contrary, I have seen at different times, with a high temperature, a pulse so rapid and weak that it could not be accurately counted, after the application of guaiacol distinctly lessened in frequency and strengthened in force. A weak and rapid pulse is to me no contra-indication for the use of the drug.

In the case of Annie Witzman the reduction of temperature is well illustrated; seventy-eight applications were made. It will be noticed that on November 11th, at 10.40 P.M., the temperature reached 107° and the pulse was 156. Fifteen drops of guaiacol were then applied, and at 12.45 P.M. the temperature was reduced to 99.8° and the pulse was 108. The table does not show this. The ice pack was used in this case, being kept up for twelve consecutive hours; yet I was forced to abandon this and return to the guaiacol in order to reduce the temperature. This case was one of the most persistent cases of high temperature I have ever seen. The patient made a good recovery.

The effect of guaiacol lasts from three to four hours; the more often it is applied, the greater the effect. When I first commenced the use of this drug I found that the sudden reduction of temperature caused chilling in a number of cases, but after I became more accustomed to its use chills rarely occurred. If it can be avoided, the temperature should not be reduced below 100°; and this is a matter which can easily be regulated after the applications have been made a few times, care being taken to commence with a small dose—say from ten to fifteen drops—this gradually being increased if necessary until the temperature is reduced.

It has been suggested that by this rapid reduction of temperature there is great danger of producing congestion of some of the internal organs of the body. I have not seen a single unfavorable symptom (except an occasional chill) following its use. I had one case of pneumonia as a complication, but this

did not develop until six days after the last application of guaiacol, which was in no way responsible for it.

The point selected for the application was the right iliac region. This was thoroughly cleansed with soap and water, and after the part was thoroughly dried (it is important that the surface should be entirely free from moisture, for guaiacol being of an oily nature will not be absorbed if there is the least moisture present) the guaiacol was slowly dropped upon the surface and thoroughly rubbed in with the hand for from ten to fifteen minutes. The part was then covered with oiled silk or waxed paper. The only preparation used was Merck's, and it rarely failed to produce the desired result. Any other point would probably do as well for the application, but I selected this because it was as near the seat of the trouble as I could possibly get, and could be easily reached and covered with the oiled silk, without in any way disturbing the patient. In only three cases was any local irritation produced, and I was forced to move to the left side to make my applications.

There were no unpleasant symptoms accompanying its use, and no complaint was made by any of the patients. The disagreeable odor that has been described by some as being objectionable, was referred to by only one of my patients, and then only on the first application. Sweating is nearly always produced, corresponding somewhat to the greater or less reduction of temperature.

One very important fact was observed in the use of this drug for the reduction of temperature in a case of pyemia. The case was seen in consultation with Dr. Detwiler, and was found with a temperature of 107°. Twenty drops of guaiacol produced no effect. The application was repeated in forty minutes, and yet no effect on the temperature was produced. Fifty minutes later another application (this time forty drops) was made, with the same result as before. The applications were continued until the expiration of three hours, when 100 drops had been applied; yet during this time the temperature had not varied over half a degree from 107°. The pulse, which was weak and rapid when the first application was made, at the end of three hours had lessened in the number of beats per minute and increased in volume. There was no sweating in this case. I have not had an opportunity of trying guaiacol in any other case of pyemia, but from my experience in this one I am led to believe that it has no value.

It may be urged that the fever of typhoid is not the disease, and does not call for treatment. That it is the disease no one will pretend to assert; but that it is an important symptom, and when it rises beyond a certain point calls for something to reduce it, or keep it in abeyance, every physician who has had much to do with this disease can bear testimony.

When the system of baths was first introduced, the only object was the reduction of temperature, but those using them found that their patients did so well under this form of treatment that they took to philosophizing upon the subject, and undertook to prove that the cold bath did something else not exactly admitting of explanation, by modifying the disease, lessening the fever, and making the case a less formidable one. That this effect is produced I am willing to concede, but that the baths do more I believe is open to serious question, and further proof will be required to place it beyond controversy in the profession.

Much has been written by the advocates of the system of the delight and pleasure their patients have experienced in being put in a cold bath. I believe these gentlemen have never tried it upon themselves. I have no reason to believe that the people of Philadelphia or Baltimore are any less susceptible to cold than those in the interior of Pennsylvania. I have used the cold bath many times, and, with the exception of a colored boy whom I treated in this way some time ago, I have not been able to make my patients believe by any argument of mine that it was an enjoyable pastime. I thoroughly believe in it as an effective form of treatment, but it is not pleasant for the patient; it is difficult to carry out in detail; it involves great expense, and, in private practice, is not a practical form of treatment. In spite of the inventon of portable bath-tubs, the method still

lacks that practicability that is demanded by the general practitioner.

Guaiacol when given internally does not markedly reduce the temperature. I have given as high as ten drops in a single dose to a patient without materially affecting the pyrexia, while the same amount thoroughly applied to the skin would reduce the temperature to a marked degree. I have also applied the remedy to those in health in sufficient doses to reduce an abnormal temperature, without any effect upon either the temperature or the pulse.

The natural question to ask would be: If this drug possesses the power as here asserted, what is its method of action? How does it reduce temperature? What is the physiologic action? Now, in order that there may be no controversy, with me at least, upon this subject, I candidly assure you that I do not know. I know the effect, but cannot explain how it is brought about.

While I have a high regard for guaiacol as a local antithermic, none of this respect is lost when I come to use it internally. As an intestinal antiseptic I believe it has no superior. I have used it in fifty-six cases of typhoid fever, with the best results. The best evidence of its virtue in these cases is the fact that tympanites was either entirely abolished or was present in so slight a degree as to be of no consequence. The tongue was moist throughout the disease, and delirium if present was of a very mild form. Of the fifty-six cases thus treated, fifty-five recovered. In the one in which death took place the patient was admitted to the hospital on the fourteenth day of his sickness, and died on the nineteenth— of perforation; an autopsy was made, and it was found that the perforation had taken place about three inches above the ileo-cecal valve. When the abdomen was opened, the unmistakable odor of guaiacol was found to be present. This was to me an important discovery, as by the death of this man was proved —what I had before been led to believe —that guaiacol passes through the alimentary canal unchanged, for the guaiacol which had been given this man was still guaiacol at the ileo-cecal valve, and passage through the colon would not be likely to change it. The smell of guaiacol was noticed in the stools of nearly all of these patients. It has been my practice to give pure guaiacol in emulsion. This is rather a disagreeable dose, and some objected so seriously to its use that I was forced to give it in capsules; when this was not expedient, then I gave guaiacol of carbonate dry upon the tongue in 2½ grain doses. I have never found this to disagree with the stomach, and patients do not offer any objection to taking it.

In summing up this question I feel convinced of the following facts:

That guaiacol when applied locally in typhoid fever, is certain to reduce the temperature.

That, with the care that a physician should always use in the administration of drugs, it is absolutely safe.

That chills will not occur if the temperature is not reduced below 100°.

That no deleterious effects are produced upon any organs of the body by its use.

That it is easy to apply and can be used by any one competent to nurse a typhoid-fever patient.

That there are no depressing effects following the use of the drug, if used intelligently.

That by its continued use the dose can be gradually lessened.

That it is far superior to the cold bath, in that it can be used by one person. No appliances are necessary for its use that are not obtainable in any house. It is much more pleasant to the patient, and carries with it no horror to the family. Argument and persuasion with the family and friends are not made necessary. It is fully as effective as the cold bath. Patients are not subjected to the danger of moving. There is no complication such as hemorrhage, etc., that is a contra-indication to its use.

That when given internally it is one of the best intestinal antiseptics known, if not the best. By its use in typhoid fever the dry tongue and tympanites are abolished, digestion and assimilation rendered more perfect, and the probabilities of hemorrhage reduced to almost *nil.*

She—I fear your love is growing cold.

He—Not a bit. It only seems cold in contrast with the weather.

PAINS IN THE LUMBAR REGION.

SAMUEL WOLFE, A.M., M.D.,* PHILADELPHIA.

Whole volumes, and innumerable shorter articles on the subject of headache, have appeared in medical literature, while backache has received but little systematic attention. The symptomatic importance of the one is probably quite equal to the other. There would seem to be some advantage in looking at either, generically. While the danger of confounding a symptom with a disease, may attach to this form of study, it is again the most certain way of clearly separating the two.

Taking all the pains that may occur in the lumbar region, we may relate a certain proportion immediately to the parts diseased. Diseases of the lumbar cord, and of its coverings; of the nerve roots, and of the spinal and sacral bones and the joints, ligaments, muscles and tendons connected with them, all have this symptom, locally expressed, more or less in common. Direct painful disturbances of the nerves of these parts also occur.

Another portion belongs to diseases in the neighboring organs of the pelvis, the abdomen, or even of the chest. Here the effects of pressure on the nerve trunks or plexuses, of extension of inflammatory processes, and of vascular disturbances are felt.

A third class of these pains connects itself with general systemic diseases. This particularly applies to a class of affections, which are of a recognized infectious nature, such as the acute fevers. But it also includes other conditions, where the seat of the morbid process is general or uncertain, and in which, while the pathology is not so satisfactorily established, the tendency is to recognize a causative or resultant toxine. Neurasthenic and hysterical states are instances of this class.

Under the first variety we have to consider neuralgia, which is nearly always connected with pains radiating into the abdominal walls, into the genitals or into the perineum, affecting therefore the ilio-hypogastric, ilio-inguinal, or genito-crural nerves.

Neuritis, if it occurs at all, is likely to be of that variety due to pressure on the nerve, or to involvement in an inflammatory focus, from which points the inflammation may ascend or descend along the nerve fibres, or its sheath.

Lumbago is a term which has been given such wide latitude, that it may include almost any painful condition of the lumbar region. It should be definitely restricted to that condition, where from exposure to cold and wet, or from injury to the muscles by overstrain or violence of some sort, there results a more or less sudden onset of decided soreness and tenderness, restricting movements, and producing a condition of slight or decided tonic spasm of the muscles involved. There is generally a history of a repetition of attacks in the same individual in cases when the cause is not distinctly traumatic. There is a relation either to myalgia or myostitis. Authorities do not make this very clear, there being apparently a division of opinion. It is somewhat probable that in some cases we have one process, and in some the other.

The joints of the vertebral column become frequently invaded in rheumatism. The cervical and lumbar regions suffer more often than the dorsal, although this discrimination may be more apparent than real, owing to the comparatively greater range of motion in the neck and lower back. The entire length of the column is sometimes affected. The cases are extremely few in which the disease remains limited to the spinal joints, and this fact greatly facilitates the diagnosis.

Traumatic arthritis needs only to be mentioned. The cause is generally too palpable to be overlooked.

The affection known as spinal irritation, or rachialgia, occurs as the result of moderate traumatism, or as a part of the hysterical or neurasthenic condition.

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Traumatic cases generally have the tenderness and the spontaneous pain, more definitely limited to distinct regions, and are less variable in degree than the other neuroses. In these we find now one, then another region more susceptible to pressure, although generally the greatest sensitiveness occurs in the neighborhood of the fifth and sixth dorsal, and about the second or third lumbar vertebra. To the writer it would seem that in hysterical cases the affection may be regarded as having a close kinship with the hysterical joint as found in other members. Writers explain this pain as being a neuralgic condition of the nerves, either of the spinal membranes, or of the vertebral joints, or both. This is quite tenable for traumatic or purely anemic cases, but somewhat more problematical for the hysterical.

Caries of the vertebræ may be almost painless, or give rise to very severe distress. The degree of involvement of the nerve-roots by the pressure upon them, or by participation in the inflammation, will determine the results.

In meningeal and cord inflammations there is generally a degree of pain felt at the seat of the disease, or in its immediate neighborhood, while another increment radiates from this locality to more distant points. This latter is apt to be the more distressing and is due to the involvement of the sensory roots. In some cases, and especially in cord troubles, it takes the form of a "girdle pain," and is then indicative of the level of the disease. In a certain proportion of cases the pain of organic cord disease is referred almost entirely to the lumbar region in a general way, regardless of the limitation of the disease. Thus the disease may involve the whole length of the cord, and yet pain be present only over the sacrum or in the loins.

Tumors of the vertebræ or cord give rise to no painful symptoms, except such as depend on pressure or inflammation. No peculiarities of character would therefore be likely to exist.

When lumbar pain is more indirect in character, of the so-called reflected or transferred variety, the mechanism may be a true transferrence, or may come about by neuritic changes arising in the nerves which extend to this region. These may occur as the result of pressure or from infection in connection with an inflammatory or purulent focus, the process extending along the fibre or the nerve sheath.

The condition known as "irritable testes" may produce spontaneous pain in the loins only, the testicle being extremely tender, but otherwise not painful. In fact, this would seem to be the more common condition.

Hemorrhoids and other rectal disturbances often cause more distress from lumbar pain than from that felt at the seat of the disease. Constipation in some subjects causes this symptom in a marked degree.

The constancy of pain in the lower part of the back in uterine disturbances of all kinds needs only to be mentioned categorically. Ovarian pains, too, are quite common here, although the crest of the ilium is the more frequent seat. In ovarian tumors and psoas abscess we naturally expect pressure symptoms, and of these lumbar pains are amongst the most frequent.

The pains of parturition, which are so constantly referred to the back, seem to me to be largely due to an intense cramp-like contraction of the muscles, which fix the lower segments of the spinal column. The effect of pressure on the nerve-trunks may be admitted, but this is more particularly present when the head is well down in the pelvis and causes radiating pains into the thighs. In thin women we can easily study the action on the vertebræ, which is to fix them successively from above downward as the pain proceeds. When nerves are actually torn or severely bruised, we have symptoms which belong to the post-parturient period as well as to the time of the delivery.

Floating kidney, nephritis, renal calculi, and pyelitis are all productive of lumbar pains. In the early stage of a renal colic the pain is in this region, while later, in the passage of the obstruction, it descends into the inguinal region.

I recall a very severe case of pneumonia in which the severe lumbar pain, during the first few days, with a comparative absence of any connection with the respiratory movements, and of other

symptoms directing attention to the chest, came near misleading me in my first attempt at a diagnosis.

Lumbar pains, arising from general diseases, are frequent in neurasthenia, hysteria, anemia, and other debilitating diseases.

Where neurasthenia is the result of sexual excesses, this lumbar, or rather sacral pain, is especially apt to be a marked symptom. While more or less constantly present, there occur acute exacerbations accompanied by a sense of great depression, and sometimes by vertigo or nausea. In these cases the knee-jerks are absent or much diminished, which is in marked contrast to the usual increase of this phenomenon in neurasthenia generally. They are especially increased in the variety known as cerebrasthenia, and here instead of backache, pressure and pain about the cranium are apt to be obtrusive symptoms. Lumbar pains, as well as some other of the symptoms of neurasthenia, are probably of lithæmic origin.

The backaches of hysterical subjects are frequently of the nature of spinal irritation or rachialgia.

Spinal anemia manifests itself largely by lumbar pains, which are aggravated by the upright or vertical position, while the contrary is very generally the case where debility arises from other causes than a pure anemia.

In all the specific fevers, pain in the back occurs as a part of the general malaise, and the same may be said of headache. In some of these disorders there is nothing that strikes the observer as specially disproportionate beteen the headache and the backache. In others again, one or the other rises into such prominence, by reason of its severity and constancy, as to become of high diagnostic value. Thus the persistency and severity of headache in typhoid, and of backache in small-pox, are both available in this direction. Small-pox has this symptom, especially marked, but it is also quite prominent in typhus and relapsing fever. While it is a severe symptom in influenza, dengue, yellow fever, septicemia and pyemia, there is so much headache here too that there is no notable disparity between the two, and the general aching and soreness also keep pace with them. There is, therefore, no special diagnostic significance in these cases, beyond the fact that altogether they point to an infectious or toxmic process.

Beyond this fact that they depend on irritations arising from the presence of deleterious organisms or their products in the economy, it is hardly safe to venture an opinion as to the mode of their production. If I were inclined to speculate in this direction, I would take capillary emboli as a starting point.

In Time To Come.

When the women all wear bloomers, and their skirts are laid away; when their legs are no more rumors, coyly hid from light of day; when the petticoat's forgotten, with its swishing, wishing swirls, and there's less demand for cotton, I'll be sorry for the girls. I'll be sorry for the lasses who in school are at their books, at the head or foot of classes—I'll be sorry for their looks; for their ma's will make their trousers, and, good heavens! don't we know, who were boys, but now sirs, that they'll be a holy show. It is bad enough when Willie weareth pants his mother made, and it often knocks you silly just to see the youthful blade wearing pants that no man knoweth which is front or which is back; if he cometh or goeth there is quite an equal "slack." But your Susie! Oh, 'tis galling; scalding tears will downward glance when you hear the urchins calling: "Say, where did you get those pants?" You will see her youthful glowing, but by no dead certain rule can you tell if she is going or coming home from school. There'll be trouble you'll allow, sirs, there'll be anguish for the pa's, when their daughters will wear trousers that are just revamped from ma's. So I'm weeping as I'm writing, and my great tears fall like pearls, scarce I know that I'm indicting for I'm sorry for the girls.

Medico Lecks—The deceased was shot between the hyoid bone and the insertion of the sterno-cleido-mastoid muscle.

District Attorney Rockaway—Do I understand you to say that wounds in this Latin part of the body are generally fatal?

CURRENT LITERATURE CONDENSED.

Origin and History of Disease Names.[1]

The origin of many of the names of disease in common use are very obscure, and yet a revised review of some medical authorities enables us to trace some of them to very interesting sources.

The word *scarlatina* first appears in English medical literature in Sydenham's *Observationes Medicarum*, published in 1676. The word is of Italian origin, having been actually employed by an Italian writer in 1527, and is derived from the Italian *scarlatto* (scarlet) in allusion to the color of the patient's skin. The English term *scarlet fever*, as applied to this very disease, was in provincial use in Sydenham's own time. The name *scarlatina* is Italian, and was long a vernacular term in use on the shores of the Levant before it was imported into Great Britain. Dr. Mason Good tried in vain, in the early part of this century, to replace *scarlatina* by the old term *rosalia*.

Another disease name of Italian origin is *iufluenza*, which was established in both popular and medical use during the epidemic of 1782. Huxham, in 1758, uses the term in its application to an epidemic "rife all over Europe." Dr. George Baker speaks of a severe pestilence called influenza, in 1743: "Influenza is a term directly imported into England from Italy, and imposed on our medical terminology by popular approval." Dr. Creighton points out that as early as 1554, the Venetian ambassador in London called the sweating sickness of 1551 an *influsso*, which is the Italian form of *influxio*. The latter is the correct classical term for a humor, a catarrh, or defluxion, the Latin *defluxio* itself having now a special limited meaning. It was, therefore, not astrology, but humoral pathology that brought in the word *influsso* and *influxio*, out of which Dr. Creighton suspects that *influenza* grew, rather than out of any notion of influence rained down from the heavenly bodies. Curiously enough, the same popular caprice which placed the named *influenza* in the list of specific diseases almost succeeded in finally degrading it into a synonym of a common cold; but the present cycle of outbreak, commencing in 1889, has finally dissociated the name with any form of catarrh.

In or before 1782, popular favor established the name *la grippe* in as firm a condition of acceptance in France as its rival *influenza* in England. *La grippe*, according to Joseph Frank, is derived from the Polish word *chrypka* (hoarseness), but was at once in France referred for its etymology to the French word *agripper* (to seize), the sudden onset of the attack in those afflicted apparently rendering this derivation a very likely and apt one.

The word *diphtheria* (from a Greek word meaning a pellicle or skin) was first used by Brettoneau in 1821, in a communication to the Royal Academy of Medicine, Paris. This new designation for a certain form of croupous inflammation was imported into English medical literature to a somewhat limited extent, and in the modified form *diphtheritis*. In 1855 Brettoneau, in a fifth memoir, altered his *diphtherite* into *diphtherie*, because, as Sir J. R. Cormack asserts, he had discovered that the disease was not of an inflammatory character. In 1857 a historical epidemic of the disease crossed the channel from France to England, bringing with it its eagerly adopted French title *diphtherie* in the slightly altered form *diphtheria*. The word appeared in the English medical journals in 1857, while those of 1858 actually abounded with it, as did the American medical journals for the same year. Its acceptance was widespread and immediate.

Croup, the name of a disease which is by some thought to be really diphtheria, was transferred during the last century from the lowland Scottish dialect into a permanent position in our medical nomenclature. The word easily came to designate the clinical syndrome of the acute cynanche in children, as in parts of Scotland *to croup* means to cry hoarsely, to croak as a raven, to make a hoarse, crowing sound. The word *croup* was first used in medical literature

[1] William Sykes, M.D., *London Lancet*, April 11, 1896.

by Dr. Blair, of Cupar, Angus, in 1718, who, in describing a hitherto unnoticed malady, gave it its local designation. In 1765 Dr. F. T. Home, another Scotchman, published his treatise on the malady, and the name croup obtained a permanent place in English medical nosology.

Measles is an old English name which the classical nosologists have in vain tried to replace by such synonyms as *morbilli* and *rubeola*. Dr. Skeat says that the word *measles* is derived from the Dutch *maseln* (measles). The disease is also called in Holland *masel-sucht*, the measle-sickness, so translated by an old English writer. The literal sense is "small spots." The original word occurs in the Middle High German *mase*; Old High German *masa*, a spot; Sanscrit *masura*, spots. Doubtless it is to this meaning of spots, hence "spotty" that we owe the term "measly pork," as applied to pork infested with the scolices of tenia.

Dr. Badham, in 1810, and Dr. Frank, in 1812, made use of the term bronchitis. The old name was peripneumonia notha, and the disease was very little known or investigated under that title.

The affection now called aphasia was in 1814 called alalia by Lordat, and in 1861 the name was changed by Broca to aphemia. But M. Chrysaphris, a Greek scholar, though accepting the term alalia, proposed as a better one that of aphasia, from alpha, privative, and phasia, speech.

The term typhoid fever was originally introduced by Louis, in 1829, and has been in general French use ever since. Dr. Wilkes, for theoretical reasons, proposed the name enteric fever as a preferable term, and this had for a long time quite a general acceptance, particularly among the writers connected with Guy's Hospital, but has never gained a footing in the language and literature of the people.

The black death which ravaged Europe, in 1348, is not to be found in any contemporary literature under that name. The term was first used by Mrs. Markham in her "History of England," published for children at the beginning of this century.

Since medical literature in this country has become essentially English, disease names, which are most in sympathy with the genius and structure of our language, or are actually drawn from our speech, are most suitable for adoption by us.

Chloroform or Ether?[2]

The question of which is the best and safest general anesthetic continues to be constantly brought under the notice of the profession by the frequent occurrence of deaths during anesthesia. The fact that opinions are still so divided shows that a good deal can be said in favor of both chloroform and ether; but one thing stands out pre-eminently, and that is, that when deaths do occur they are nearly always when chloroform has been used. It is also fairly evident that, so far, experiments on animals have not helped us much in coming to a right conclusion as to the safest anesthetic to use for the human subject.

One of the great advantages of chloroform is the very simple way in which it can be given even by one who has had very little experience in anesthetics. It is also fairly pleasant for the patient to inhale, and in the great majority of cases it answers the purpose admirably.

A few of the deaths reported lately are good illustrations of the different ways in which chloroform appears to kill. Some of the patients were obviously not fully under the anesthetic, as they were said to have "struggled, evidently feeling the pain," and immediately afterwards the heart and respiration stopped. Others in going under struggled violently and suddenly died. Another died just after he had been lifted from one place to another; while another succumbed apparently because the chloroform was administered to him whilst he was sitting upright. In two cases it was noticed that the heart stopped before the respirations, and several others read as though death was due to primary cardiac syncope. Chloroform, in some patients at any rate, appears to put the heart into a condition of instability—that is, in this state its action is affected and may be stopped by circumstances which at no other time have such influence on it. Hence, in-

[2] John Freeman, F.R.C.S., in *Bristol Medico-Chirurgical Journal*, July, 1896.

terfered respiration, the act of vomiting, the feeling of pain, etc., have all in their turn brought the heart to a standstill.

The large number of deaths that have happened lately in children shows that chloroform is not such a safe anesthetic for them as was once thought.

Since deaths are so frequent under chloroform, the question ought to be considered whether we are quite justified in employing this agent. It is true the chance of an accident happening in any particular administration is very small; but there is no doubt that in all those cases that ended fatally the anesthetists thought the same thing, and probably some of them told the patients as much. There are some who, because they have given chloroform a great many times without any accident, have come to look upon it as a safe agent; but while they have had good luck, others quite as experienced have not been so fortunate; besides, as only a small proportion of patients die in this way, many anesthetists will chance to have a large experience without a death. But at the same time, since we have no means of telling which patient will take chloroform well, and which one will die from it—a strong, healthy man being just as likely to fail as a weak one—it is doubtful whether we are doing the best for the patient when we proceed to give this anesthetic, unless there is some special reason why it should be the one selected.

Ether appears to be becoming more generally employed every year. There are several reasons why it is not used more. It requires an apparatus for its administration and is a little difficult to give. While one who has never administered an anesthetic before will be able to get a patient under fairly easily with chloroform, this is not usually the case with ether. Great difficulties may be met with by the beginner, and with a strong patient there would very likely be failure. Ether is not pleasant for the patient to take, and it is said not to relax muscles sufficiently in some cases. The most important objection, however, and the one which chloroform advocates use against it, is in its after-effects, particularly in regard to affections of the air-passages. These points about ether are worth some consideration. The difficulties connected with its administration are to a great extent preventable; it can be given in such a way that thirty or forty cases in succession will take it without there being struggling or any other difficulty; and when one sees a very muscular man go under without moving so much as a finger, as is frequently the case, it is difficult to believe that he is experiencing any very great discomfort. The causes of struggling, etc., are sometimes fairly obvious and may be due to too strong a vapor being presented to the patient at the commencement of the administration. The patient finding it impossible to breath this, although he may try his utmost, naturally begins to struggle for breath. Another cause is, that the ether is sometimes commenced when the bag is only half full of air, and some that is in it will very likely be allowed to escape, through the face-piece not being applied properly, so in a minute or so the bag is empty. The patient tries to take an inspiration, when the bag collapses, as there was so little in it. Under such circumstances, is it surprising that the patient, finding he cannot get any air to breathe, should struggle? Again, giving too much fresh air at an early stage of the administration is a frequent cause of struggling. You may see a patient begin to take ether perfectly, and he may have got to the stage where consciousness is just being lost, the breathing being rapid and forcibly expanding the air-bag at each expiration. Should at this period the anesthetist unguardedly allow two or three breaths of fresh air, trouble may be expected. A small quantity of fresh air at this stage will restore the patient's consciousness, and bring back sensitiveness to his air-passages. On the inhaler being re-applied, the patient instantly holds his breath, he feels and realizes the pungency of the now somewhat strong ether vapor, and struggling, vomiting, and other troubles rapidly follow each other.

Such points as these make all the difference to the sensation experienced by the patient, and very little practice will prevent those who are learning to give anesthetics from making such mistakes. I do not agree with those who say that ether will not sufficiently relax muscles

for some operations. I believe that continued rigidity of the muscular system depends much more upon how the ether is administered than upon any peculiar idiosyncrasy of the patient, and I never meet with cases in which I cannot for all practical purposes completely relax the muscles. All patients, in going under with ether, pass through a stage in which there is more or less rigidity. This passes off in most patients in a minute or two, but there are two classes of individuals—the alcoholic, and the very muscular—in which this may not happen. These remain rigid for some time; and you may have the ether on full, and limit the supply of fresh air to a large extent, and yet the spasm continues. These are exceptional cases and they require different handling, but it is a mistake to think that nothing more can be done to get them under. The appearance of the patient in this condition gives one the key to the difficulty. The muscular spasm is a general one, and so the muscles of respiration are included. The result of this is, that the patient becomes deeply cyanosed. On giving a plentiful supply of fresh air to remove this cyanosis, one notices at the same time that the muscles begin to lose their rigidity; so in these cases, when I find, after a good trial of ether, that the muscles do not relax, I remove the inhaler altogether, and let the patient have fresh air until his normal color returns and the rigidity begins to subside. Of course, this procedure brings the patient half round from his anesthesia, and his reflexes become active again, so on re-applying the inhaler it is very necessary to begin with a weak vapor; a strong one, by causing holding of the breath, etc., would bring back all the rigidity in a very short time. I have not met with a case yet which failed to go under completely on this second attempt, but necessarily the time taken to get one of these patients under is much longer than in an ordinary case.

With regard to the after-effects of ether, there are only two worth considering. The first is vomiting. In comparing the vomiting that takes place after ether with that of chloroform, so far as I have been able to observe, there is very little difference between the two. More patients vomit after ether than after chloroform, but the ether vomiting generally passes off more quickly. That long-continued vomiting, going on into the second or third day, which now and then follows chloroform, is very rare after ether.

Now we come to the chief objection to ether as an anesthetic; viz., that it sometimes produces affections of the air-passages; were it not for the possibility that ether may indirectly cause death in this way, chloroform would have been doomed long ago. In 1600 administrations of ether to patients of all ages, from six weeks up to eighty years, (many of them, too, were in long operations lasting two or three hours), I have met with one patient who had some bronchitis after. This was a woman aged twenty-three, who, however, made a good recovery. The anesthetic received all the blame; but I have also had a case in which bronchitis followed an operation in which chloroform was the anesthetic.

I think we have not to look far to find the reason of the greater safety of ether. The full bounding pulse of ether anesthesia shows how much the circulatory system is stimulated by it, and the rapid and deep character of the breathing proves the same influence on the respiratory organs. So if instead of using an anesthetic which has a tendency to depress both the respiration and the circulation (as chloroform has), we employ one that has a directly stimulating effect, we are much more likely to tide these "morituri" over their operations.

FAIR PATIENT—"Is there no way of telling exactly what is the matter with me, doctor?"

DOCTOR—"Only a post-mortem examination can reveal that."

SHE—"Then for heaven's sake make one. I don't see why I should be at all squeamish at such a time as this."—*Tit-Bits.*

"Father," said Sammy, "the teacher says you ought to take me to an optician's. He says I've got astigmatism."

"Got what?"

"Astigmatism."

"Well, if he don't thrash that out of you, I will.—*Exchange.*

TRANSLATIONS.

MEDICAL PRACTICE ABROAD.*

(Formerly Therapeutic Suggestions from Foreign Journals.)

Treatment of Hiccough.

Varangot (*Independance Méd.*) controls prolonged hiccough by the following procedure: Some seconds after a contraction, the patient, standing and having relaxed any kind of constriction of his waist, makes a half-respiration; then immediately pinches his nostrils and begins to sip a half-glass of water regularly and without breathing. This must be done so long as possible, and if it is necessary, repeated.

Syphilis and Hypodermic Injections of Mercury.

Dr. Bayet (*Deutsche Med. Zeitung*, 1896) proscribes the use of insoluble salts (calomel, hydrargyr. oxyd. rubr., oleum cinereum). The hypodermic injections of soluble salts of mercury, like sublimate or peptonate, are, on the contrary, recommended. Hydrargyrum benzoicum is very often used and always gave good results. It is employed in doses of 0.01 grm. (gr. $\frac{1}{6}$). Its best formula is:

℞

Hydrarg. benzoic . . .	0	25	(gr. v).
Sodii chlor.	0	06	(gr. j).
Aq. dest.	30	0	(℥j).

S.—One syringe daily.

The sozoiodolicum hydrargyrum is employed in the following formula:

℞

Hydrarg. sozoiodol. . .	0	80	(℥ijss).
Kalii iodati	1	60	(℥ss).
Aq. dest.	10	0	(℥ijss).

S. One injection every five days.

Ulcer of the Stomach, Complicated with Hemorrhage.

According to the editor of the *Journal de Méd. de Paris*, it is necessary to condemn the patient to an absolute rest and immobilization of the stomach. The patient must not move nor leave his bed. Complete abstinence is to be recommended of even ice, of which the effects are rather noxious than useful. It can be employed externally, as compress of ice put on the epigastrium. If the hemorrhage continues, inject into the stomach a full syringe of the following solution:

℞

Extr. ergot	1	0	(gr. xv).
Aq. dest.	5	0	(℥jss).
Ac. carbol.	0	10	(gr. ij).

Give no nourishment, not even by rectum. Nevertheless, if the patient is not robust and the circumstances present immediate danger, have recourse exclusively to alimentary enemata, as follows:

Milk	250 grm. (℥viij).
Yolks of eggs	No. ij.
Salt	1 teaspoonful.
Red wine	1 tablespoonful.
Starch	1 "

M. S. Inject lukewarm and slowly, two or three times a day after an enema of pure water.

Pain is combated with narcotic remedies (chlorhydr. and phosph. codeini, gr. $\frac{1}{2}$–1). If there is constipation, administer an enema of lukewarm water, with soap, glycerin, olive oil or castor oil. The patient stays in bed in dorsal position for four or seven days after the hemorrhage. The aliments must be liquid and lukewarm (99°–100°): Milk and aqua calcis or milk with some tea or coffee, beef-tea, Koch's peptones, solution of Leube's meat, emulsions of the white of yolks of eggs, mineral water of Vichy. No chocolate; no wine. During the second week after hemorrhage, administer Leube's and Ziemssen's cure: In the morning and evening, 250 cc. of Carlsbad water with 5 or 40 grm. (℥jss or ℥jss) of natural or artificial Carlsbad salt. Permanently apply compresses, which must be so warm as to provoke a reddening of the skin. Diet mentioned above, with nutritive enemata, in case of great weakness.

*Translated for THE MEDICAL AND SURGICAL REPORTER by A. Gordon, M.D.

Ferropyrine for Chlorosis.

In the treatment of ordinary chlorosis, the formula is as follows (*Journ. de Méd. de Paris*):

℞

Ferropyr. 0	60	(gr. x).
Syrup aurant . . . 20	0	(℥vj).
Aq. dest. . . q. s. for 200	0	(℥vss).

S. A tablespoonful three times a day.

For chlorosis, with dyspeptic trouble:

℞

Ferropyrine 0	60	(gr. x).
Acid chlorhydr. dil.	M v.	
German pepsine soluble 5	0	(℥iss).
Aq. dest. . q. s. for 200	0	(℥vij).

M. S. A tablespoonful after each meal.

For chronic gastritis:

℞

Ferropyrine 0	60	1.0 (gr. x).
Tr. opii 2	0	(℥ss).
Aq. dest. . q. s. for 200	0	(℥vij).

M. S. Two tablespoonfuls every three hours.

Guaiacol for Tuberculous Iritis.

Dr. Vignes (*Bulletin Méd.*, April 22, 1896) had under his care a case of tuberculous iritis, which the usual treatment did not relieve. The treatment consisted of administration of mydriatics, paracentesis, hydrargyrum, salicylates, revulsion, etc. He then had recourse to oily injections (1:15) of guaiacol and the result was remarkable; the most rapid improvement following.

Morning Diarrheas.

By this name Dr. Delafield (*Deut. Med. Zeit.*, April 20, 1896) calls a certain group of thin stools which take place during the early hours of the day.

1. The most ordinary cases are when a thin and slight stool occurs every morning right after breakfast. This state may continue an entire year or be interrupted by attacks of constipation. In such cases the sufferer does not generally consult the physician.

2. Completely different is the case where, instead of one stool, there are many. Some of these patients become so weak that they are unable to undertake any kind of work. In some cases will be found pain caused by the defecation and constant pain and cramp in the region of the colon. The irritation is so considerable that the least fatigue provokes diarrhea.

3. In advanced cases as soon as the patient gets up multiple defecations occur.

4. Some patients get the diarrhea after eating the first morsel.

5. The presence of mucus in the feces indicates a prolonged and rebellious case.

The treatment consists of: 1. A changement of climate, which is often very favorable. 2. Dieting. Here the following methods are proposed: (*a*) exclusive milk-diet; (*b*) exclusive meat-diet with hot water; (*c*) meat and milk; (*d*) a diet from which the carbo-hydrates are excluded. 3. In some cases daily stomach washings are sufficient. As to the medical treatment, opium is very useful to diminish the number of stools; nevertheless, the improvement exists only while this remedy is taken. A good result is obtained from bismuth. Salol and naphthalin are good in some cases, and in some have no effect. Arsenic, quinine, ipecac, belladonna and cannabis indica are useful. The best results are obtained by the author from castor oil in doses of five to ten drops.

Fissura Ani Treated without Operation.

According to Dr. Adler (*Deut. Med.-Zeit.*, 1896) fissura ani can be cured without any operative interference by extraordinary cleanliness with frequent washing and by regulating the stools by diet, slight purgatives or injections. The pain can be relieved by means of suppositories of opium and belladonna or ung. conii. The treatment, proper, consists of an application of nitrate of silver in solution of 2 to 5 per cent., preceded by an application of a 4 per cent. solution of cocaine. In addition to that the author recommends an unguent of calomel or zinc.

℞

Zinci oxyd.		
Plumbi acet. . . . . āā 0	60	(gr. x).
Vaselini 15		(℥ss).

Tape-Worm Treatment.

Norweigton proposes (*Therap. Monat.*, January, 1896).

℞

Sodii puri 0	75	(gr. xv).
Kalii iod. 2	25	(gr. xlv).
Aq. dist. 30	0	(℥j).

M. D. S. Ten drops three times a day.

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PHILADELPHIA, SATURDAY, AUGUST 15, 1896.

EDITORIAL.

"DOCTOR."

The ethics of our profession is often discussed, more rarely the etiquette. Yet the latter is in direct dependence upon the former and is nothing but the practical expression of the Golden Rule, save as modified by certain persons who magnify the importance of forms.

How much is expressed in the one word *Doctor!* How many men have been recalled from temptation by the reminder of their professional responsibilities! Faust, about to yield to carnal inclinations, is checked by Mephistopheles' sneer, "Doctor! Doctor!" The title is a proud one, although humble if viewed from scholastic standards. It does not represent the attainment of public honors marked by LL.D., nor the years of patient and successful ministration rewarded by D.D. or S.T.D., much less the educational goal of Ph.D., the highest title which intellectual effort can achieve. The degree of Doctor of Medicine does not rank even with the Master's or the Bachelor's degree conferred by colleges, but it carries with it a dignity not inherent in any of the others, for it signifies devotion to a life work and fellowship in a noble army instead of an empty and relative superiority. The man who vaunts a literary or honorary title may rightly be accused of affectation. The use of the doctor's title can lead to no such sneer, for it is

open to any man and woman of moderate ability who is not truly illiterate.

"Doctor" is a shibboleth, the use of which is an index to one's familiarity with medical amenities. The young physician is sometimes puzzled as to the proper times for using the title and for omitting it. In general, it may be said to be correct usage to address any American physician or surgeon as *Doctor*, unless he is presiding at a public meeting. One holding a teaching position may be addressed as professor, and a military or civic title may also be used; but so far as the intercourse of medical men is concerned no title takes precedence over Doctor, and it is never out of place. On the other hand, we believe it to be better taste not to drag the professional title into business. In business or legal papers—and the signature to a prescription is no exception—the name should appear without the prop of either *Dr.* or *M.D.*

It is sometimes embarrassing to know how to deal with people who forget that a physician has no more claim to the title of *Mr.* than to that of *Judge* or *Hon.* All things considered, it seems wisest to follow that same rule of common sense which applies to correcting mistakes in the spelling or pronunciation of a name. If the mistake is made by a chance acquaintance, let it pass. If it is made by one with whom the physician is likely to come into frequent relations, make the correction as frankly as you would say "My name is spelled without the e," or as a woman would say, "It is *Mrs.*, not *Miss.*" It must be remembered in this connection that foreigners use *Mr.*, or its equivalent as a genuine mark of respect and not simply as a handle for a proper name. It would seem as much of a discourtesy for a German or Frenchman to address his physician simply as Dr., without using the title *Mr.* alone or with the former, as it would for us to be translated into classic times and to address our parents or distinguished strangers by their first names.

Physicians—at least those of the same school—invariably address one another in letters as "*Dear Doctor*," unless extremely intimate or unless the rules of some government service or other organization require an official form. It is, we believe, perfectly proper for one not in the profession to use the same form of address, though not customary except for those having frequent dealings with physicians—for instance manufacturing chemists and publishers of medical books.

The general rule that a title should not be used without the name of the person addressed is, by common consent, suspended, so far as our profession is concerned. Physicians often, in emergencies, meet without knowing each other's name, or a distinguished member of the profession meets so many colleagues at a society meeting or in his clinic room that the use of names would be practically impossible, while all embarrassment is removed by the custom of addressing all one's professional associates as Doctor.

Do not allow any one to call you *Doc.* The people who perpetrate this insult are too deeply steeped in vulgarity to be affected by anything but the plainest explanation. If Doctor is too long a title for them to use, ask as a special favor that they will call you *Bub.* We need not emphasize the fact that *doctor* is a noun and never a verb, but patients will continue to be "doctored," and occasionally we find a physician who has yielded to their bad example.

"They say riding a bicycle is health-producing." "Can't agree with you. I never had to pay so many doctor's bills as I have since I took it up." "But you look extremely hale and hearty." "Yes, but I mean the doctors' bills of those I ran over."—*Harper's Weekly.*

ABSTRACTS.

SUGAR FORMATION IN THE LIVER.*

In a communication made to the Physiological Society at its recent meeting at Oxford, Dr. Pavy related some experiments with regard to the post-mortem glycogenic action that occurs in the liver. It is well established that a considerable formation of sugar takes place in the liver after death. This is due to a hydration of glycogen into sugar, a phenomenon that is brought about by ferment action, and, according to Dr. Pavy's views, is the converse of what takes place during life, when the vital activity of the liver protoplasm produces a dehydration of carbohydrate matter by transforming sugar into glycogen. The view is, however, held by some physiologists that the transformation of glycogen into sugar, which occurs in the liver after death, is yet an act of vitality due to the continuance for a time of molecular life. The conversion of glycogen into sugar, however, is, Dr. Pavy said, readily effected by chemical and by ferment action, and *a priori* it appears superfluous to invoke vital action to account for such a conversion in the liver after death. Moreover, Dr. Pavy has advanced arguments to show that the production of sugar could not go on in the liver during life, as it does after death, without the production of diabetes. When the liver substance is treated with alcohol, the ferment which it contains is precipitated, but retains its properties, and when dried may be kept for an indefinite time.

In the experiment which Dr. Pavy described, the liver of an animal recently killed (the animals used were rabbits and cats) was well pounded with spirit, which removed the sugar present at the time; the product was dried without the use of heat and reduced to a powder, which it was found could be kept for use as required. When this powder was treated with water and kept in an incubator for two or three hours an active production of sugar took place. As a control experiment a similar quantity of the powder was plunged into boiling water which would destroy the ferment, and this specimen did not on incubation give evidence of the production of sugar. It is impossible to conceive, said Dr. Pavy, that a dry powder obtained by treating liver substance with alcohol, a powder which may be kept unaltered in a stoppered bottle for months, can retain vitality. In comparing the amount of sugar produced in fresh liver when incubated and that produced in the dried alcoholic precipitate, allowance has to be made for the difference between the dried and the moist state, and when this is done the results are concordant. Ordinarily, in an alcohol-coagulated liver, fairly rich in glycogen, the sugar produced (reckoned as glucose) amounts on incubation for two or three hours to 35 to 45 per 1000. In one recently experimented with it amounted to 53 per 1000.

These experiments, Dr. Pavy asserted, support the contention that the production of sugar in the liver after death is due to a ferment action, and not to the vital activity of the liver protoplasm. Briefly stated, his conclusions are as follows: The amount of sugar in a liver taken without any special precautions to insure rapidity of manipulation, is considerable; that which is present in a liver removed with rapidity immediately after death, and at once plunged in a freezing mixture and thus reduced to a temperature which would suspend both vital and ferment actions, is small. The saccharine condition of the liver taken after death by ordinary methods, is thus seen to be due to a post-mortem change. The fact that in liver substance, treated with alcohol, dried and powdered, a considerable production of sugar can take place under suitable conditions of moisture and temperature, is a proof that the change is due not to a vital but to a ferment action, a conclusion which considerations drawn from the nature of the chemical change rendered probable *a priori*.

* *The Lancet*, July 18, 1896.

CHLOROFORM—ITS METHOD OF ADMINISTRATION; ITS DANGERS AND THEIR TREATMENT.*

The apparatus should include a mask, chloroform dropper, a mouth-gag, strong tenaculum, and sponges upon holders. A hypodermatic syringe with digitalis and strychnia should be at hand and ready for instant use. The advantages of the mask are its simplicity and comparative cheapness. A still cheaper and yet practical substitute can be made from telegraph wire. The gauze covering the frame should, after each operation, either be boiled or thrown away. There is no question but that diphtheria, scarlatina, erysipelas, and other contagious diseases have been communicated to healthy persons by means of infected masks, and no person should be exposed to this risk when the prevention is so easy. I have purposely substituted the strong tenaculum for the regular tongue-forceps, for the reason that the latter is not an effectual instrument. Furthermore, it inflicts considerable injury to the tongue, which not only causes much discomfort to the patient in the days succeeding operation, but may in children seriously interfere with alimentation. The strong tenaculum, if fastened into the back part of the tongue, is a less harmful and much more efficient instrument.

Having covered the mask with some porous material to insure the admixture of plenty of air, we may begin by dropping a few drops upon the mask and holding the same a little distance from the nose and mouth. Beside the discomfort to the patient of beginning with too concentrated vapor, there is positive danger of producing arrest of breathing by the irritation of the terminal fibres of the fifth nerve in the nasal mucous membrane and of the superior laryngeal in the larynx. At most not more than twenty drops should be put on the mask at one time. These may be lessened as anesthesia proceeds, and should not be reapplied until the dark stain, caused by the preceding drops, has passed away. In a short time it will be found that two or three drops at a time suffice to maintain complete surgical anesthesia. Giving chloroform in this way has several advantages:

1. It does not frighten the patient or make him uncomfortable.
2. The excitement stage is almost always absent.
3. After-effects, like nausea and vomiting, are either absent or less severe.
4. The narcosis can be maintained for hours without danger.
5. The amount of chloroform used is less than one-half that in the ordinary way.
6. The danger from an overdose is almost *nil*.
7. The method requires the undivided attention of the anesthetizer, who is thus prevented from watching the operation to the neglect of his patient. The common practice of pouring a quantity of chloroform upon the mask to make it "last," that the anesthetizer may observe the operation with less interruption, is criminal.

The patient should close the eyes and either take full, deep, and regular breath, or, if too nervous to do this, an excellent substitute is to count, a procedure which insures regular breathing. Quietude about the patient, kind encouragement, removing the mask from time to time to give more air, telling the patient some of the sensations he may expect, such as slight choking, and hammering noises in his ears, and that when he begins to swim off into space he must not resist, will make most persons much more tractable. They feel assured that what they are experiencing is the expected and not of bad omen. The explanations and assurances are not trivial, for they aid in obtaining tranquillity, which in turn lessens the liability to respiratory and circulatory disturbances. In about five minutes, some sooner and some later, the average person will have become insensible. This period not infrequently, however, varies, and no one can ever predict with certainty as to the time that will be required in a given case to produce anesthesia. I recently operated upon a case

* John Parmenter, M.D., in the *Buffalo Medical Journal*, April, 1896.

in which an experienced practitioner had produced not even unconsciousness to the voice in one hour. Squibb's chloroform had been used, and after a time all air was excluded, so far as towels over the mask could shut it out. Investigation showed that the mask had been kept too wet. A dry mask and the drop method of administration produced anesthesia in five minutes.

SOCIETY REPORTS.

PHILADELPHIA COUNTY MEDICAL SOCIETY.

Stated Meeting, April 22, 1896.

The President, DR. J. C. WILSON, in the chair.

DR. H. A. HARE read a paper entitled

"AUTO-INTOXICATION, PRODUCING EPILEPTIFORM CONVULSIONS; HYSTERICAL SPASM IN THE MALE; INTESTINAL OBSTRUCTION; APPENDICITIS; PERITONITIS; OPERATION; RECOVERY; RELAPSE IN TYPHOID FEVER."

[See page 199.]

DISCUSSION.

DR. JOSEPH PRICE dwelt upon the importance of the central incision in cases like the one of appendicitis reported. It is also a matter of moment to free all adhesions in order to prevent the possible recurrence of symptoms of intestinal obstruction. The success of surgical treatment depends upon the relief of sepsis, and to this end the open treatment is most advantageous.

DR. HARE added that it was common in his experience with typhoid fever for either recrudescences or relapses to follow the too early ingestion of solid or semi-solid food. It would seem as though the change from a milk-diet to other form of food favored in some way renewed activity on the part of the typhoid and perhaps other intestinal bacteria.

By the invitation of the Board of Directors, DR. HORACE G. MCCORMICK, of Williamsport, read a paper entitled

"SOME OF THE THERAPEUTIC USES OF GUAIACOL."

[See page 202.]

DISCUSSION.

DR. J. V. SHOEMAKER stated that he had employed guaiacol especially in the treatment of such diseases of the skin in which formerly it had been the custom to employ creosote and carbolic acid—e. g., superficial epitheliomata, lupus vulgaris and old ulcers. The remedy has also been employed topically with success in the treatment of orchitis and epididymitis.

DR. H. A. HARE pointed out that guaiacol has pretty much the same powers and dangers as the coal-tar antipyretics, antipyrin, acetanilid, phenacetin, etc. It is, however, not so useful as the cold bath intelligently applied. It must be remembered that fever has some protective influence and may be viewed as the reaction of the organism to the invasion of the disease-process. The cold bath does more than reduce temperature. It has, besides, a distinctly vitalizing influence, stimulating in general the functional activities of the organism. Dr. Hare criticises the routine employment of the cold bath and maintained that this procedure is not to be pursued in every case, but only when other measures prove insufficient. The question is essentially one of dosage, and it is necessary to adapt the treatment to the disease as seen in individual cases.

DR. J. P. C. GRIFFITH said that he had used guaiacol externally in a number of cases of typhoid fever, but had given it up because of his inability to control its action. It had seemed to him difficult, if at all possible, to determine in advance how many drops of the remedy will be necessary to effect a given reduction in temperature, the dose affecting one patient not at all, inducing a great fall in temperature in another.

DR. J. M. ANDERS related that in an extensive experience with guaiacol he had twice observed its application to be followed by a rise of temperature to a point higher than the previous maximum temperature. He had therefore abandoned its use in cases of typhoid fever, and had confined its employment to cases of subfebrile and afebrile disorder. Thus the drug had yielded good results in the treatment of myalgias and neuralgic pains. For this purpose it was mixed—as Ferrard first suggested—with an equal part of glycerin and painted upon the affected surface. He had found that its hypodermic use proved even more effective than the topical application, a minim or two of guaiacol being mixed with ten minims of chloroform, and the dose repeated as needed.

DR. FRANK WOODBURY pointed out that the action of guaiacol is probably to be attributed to its absorption into the blood and its influence on the thermic centres. Guaiacol has also proved itself useful in the treatment of pulmonary tuberculosis. It constitutes about sixty per cent. of creosote, which is the best single agent at present known in the treatment of tuberculosis. Carbolic acid and guaiacol do not act alike; the former is far the more toxic. On account of its disagreeable taste, guaiacol has been, in his own practice, largely superseded for internal administration by guaiacol carbonate. Under this plan of treatment it has been observed that hectic is reduced and retrograde changes effected in the morbid process in the lungs. Guaiacol has also been used endermically in phthisis, accompanied by high temperature, as recommended by Dr. J. Solis-Cohen.

DR. S. SOLIS-COHEN stated that he had had an opportunity of seeing some of Dr. McCormick's cases and had come to the conclusion that the patients had passed through dangerous disease as safely and as comfortably as after any other mode of treatment. Nevertheless, he was unable to agree that the drug should supersede the cold bath. Briefly stated, it is an excellent means of treatment in suitable cases. Guaiacol internally is, like salol, an excellent antiseptic, and is capable of controlling the fetor of the stools. For this purpose the carbonate and the salicylate may also be used. It is a fair question whether the reduction of the temperature in cases of pulmonary tuberculosis by means of applications of guaiacol really does good and whether the patient is better off for it. The reduction is not permanent and the applications, to be effective, must be repeated frequently. The matter of personal idiosyncrasy must be taken into consideration, some individuals reacting to a moderate dose, while in others a large dose induces but a slight effect. Applications of guaiacol seem to prevent the growth of the diphtheria-bacillus in the throat. Dr. Cohen referred to two epidemics of diphtheria at the Pennsylvania Training School for Feeble-Minded Children at Elwyn, in which the outbreak was brought to a close by the topical application to the throats of the healthy children of guaiacol diluted with 50 per cent. of sterilized olive-oil, with the addition of ten per cent. of menthol.

DR. A. B. KIRKPATRICK referred to a half dozen or more cases of typhoid fever in which he had administered guaiacol carbonate internally, with the result of having the tongue clear and the appetite and digestion improve, while the temperature declined gradually from day to day, becoming normal in several cases within two weeks or less. The drug had also proved useful in the treatment of entero-colitis as a very safe and efficient intestinal antiseptic.

DR. MCCORMICK, in conclusion, replied that he had not observed any increased elevation of temperature after topical applications of guaiacol. The drug is, of course, not without its dangers, as all active medicaments are, but in the hands of the intelligent physician these are minimal. Whether the application shall be made or not must be determined in every individual case from the symptoms and general condition. Dr. McCormick repeated that while the fever is not the disease, it must at times be treated, whether guaiacol or the cold bath or other means are used for the purpose.

DR. JOSEPH PRICE read a paper entitled

"RECTO-VAGINAL ANASTOMOSIS AND COMPLETE EXTIRPATION OF THE VERMIFORM APPENDIX."

[See Vol. LXXIV, page 616.]

DISCUSSION.

DR. GEORGE ERETY SHOEMAKER said that while the cutting out of the end of the appendix from the cecum may be useful, if that part of the organ is cheesy or is sloughing this is not usually necessary. Almost always the disease is found not to have seriously involved the end of the appendix nearest the cecum, as that part has been well drained. Ligation also secures quick and thorough control of the blood-supply, while invagination of the stump yields perfect results without any danger of a gush of feces, especially when it is necessary to operate without securing perfect cleansing and collapse of the bowel by previous purgation.

The method of tying off the broad ligaments from in front in doing pan-hysterectomy from above seems scarcely to differ from the methods commonly employed and described in journals and books. After dissecting down the bladder and opening the vagina, the operator will naturally tie off in the most accessible direction. Dr. Shoemaker referred to a case in which, under special necessity of avoiding a misplaced ureter, he tied around from the front, with no thought of doing anything but an adaptation of a well-known operation.

DR. M. PRICE reported a case of appendicitis in a young man, twenty-two years old, on whom he operated thirty-six hours after the first symptoms had appeared. The appendix was covered with inflammatory lymph, and the bowels were everywhere adherent. The peritoneum covering the appendix was amputated down to the indurated and thickened appendix. This was pushed back to the head of the colon, and the hard and indurated portion of the appendix cut out of the head of the colon. The peritoneum was pushed into the opening, and sutured with Lembert sutures. The vessels were tied in the mesentery. Thorough separation of adherent bowel and irrigation with gauze and rubber drain was effected and recovery ensued without bad symptoms.

PERISCOPE.

NEWS AND MISCELLANY.

Two cases of fatal rupture of the vagina during labor are reported by Fraipont in *Journal d'Accouchements*, both in multiparæ over forty. The presentation was transverse in both instances. Labor occurred in the first patient at the end of the sixth month after hemorrhages had continued for eight weeks. Marginal placenta previa complicated the shoulder presentation. Several days were wasted, and the patient was admitted into a lying-in hospital moribund. Version and extraction were at once performed, then a hole was found in the posterior *cul-de-sac*. Plugging proved useless; the patient died within three hours. No blood was found in the peritoneal cavity; the vaginal wall was torn through posteriorly, and the peritoneum in Douglas's pouch detached. The second patient was in labor at term; she had already been six times pregnant. After two practitioners had failed to deliver, the shoulder presenting, the patient was admitted into hospital very pale, yet but little flooding had occurred. The uterus was empty; the child lay to its right. A large child, dead, was extracted through a hole in the right lateral fornix. Part of the cord and placenta could not be removed. The patient died within a few hours. On opening the abdomen, the peritoneal cavity was found quite free from blood, but the whole of the posterior pelvic layers had been detached and pushed far upwards. Thus a wide cavity, in which the fetus had lain, existed below the peritoneum; it communicated with the vagina through the laceration, but there was no opening into the cavity of the peritoneum of any adjacent viscera.

The influence of climate on menstruation has been carefully studied by Joubert, and in an article in the *Indian Medical Gazette* he says that from a careful study based upon over 3,000 patients between the ages of ten and nineteen years he has arrived at the conclusion that the reason why girls in tropical countries menstruate at a relatively earlier age than Europeans is not because of the influence of the climate, but because of too much sexual excitement.

Congenital absence of a kidney has been investigated by Ballowitz in Virchow's *Archives*, and, according to the *Yale Medical Journal*, he has gathered the record of 213 cases, excluding those of fused kidney and partial atrophy of one kidney. Relative to sex this imperfection occurs nearly twice as often in males as in females, a circumstance attributable in a measure doubtless to the greater frequency of necropsies on the former; relative to age, three were twenty-three in foeti, most of which had some other malformation, especially imperforate anus; the others were about evenly distributed up to seventy years of age. All cases considered, this deficiency is more often on the left than on the right side, and though the left kidney is more generally lacking in males than the right, in females the defect is equally common to both sides. In form and relation, the solitary kidney was most invariably normal, but much enlarged, apparently owing to hyperplasia rather than hypertrophy. In many cases there were attendant deformities of the procreative organs, most constant on the side of the renal defect, the conducting channels being modified more than the glandular portions.

A plea for the use of criminals condemned to death in the interests of science through experimentation is made by Dr. J. S. Pyle, of Canton, Ohio. He says that a human being whom justice has condemned to suffer death has forfeited every naturally inherited right and indebted himself to society for the loss of one or, perhaps, more of its members and the expenses of a fair and impartial trial. This latter, justice exacts to the same extent as it does the death penalty, and, if the purport of the law is followed, the right to experiment upon capital criminals cannot be denied. Why a capital criminal should not be used in the interest of suffering humanity is hardly to be understood. Can intelligent people exhibit more sympathy to criminals of this class than to the patient sufferers dying daily from diseases that might be prevented by the knowledge gained from such experiments? Can a sentiment be respected which removes human sympathy from the suffering, law-abiding citizen to the capital criminal? Can the execution of a death sentence conducted in the same manner as a modern surgical operation be truthfully represented as more brutal and less sympathetic than hanging or electrocution? The facts are that in no way would it approach the frightfulness or brutality exhibited on the gallows or in the electric chair.

Much interest has always been felt from a medical point of view in the simulation of death by Indian fakirs. Dr. Kuhn (New York *Medical Journal*) has had occasion to observe two cases recently, the genuineness of which he had no reason to doubt. One of the fakirs in question had been interred for six weeks and the other for ten days. The fakirs, who are hysterical to the highest degree, possess the faculty of producing artificially a condition identical with cataleptic ecstacy. They use all possible means, such as mortification of the body by a special diet, the internal em-

ployment of different plants known only to themselves, and the adoption of a peculiar posture of the body for many hours, etc. When they have practiced this for a sufficient length of time, they assume one of the postures prescribed by the sacred books of the Indians and fall into a hypnotic condition induced by looking fixedly at the end of the nose. Hasheesh is still made use of by them to diminish the respiratory force, for this hypnotic, when associated with other plants and employed in a peculiar manner, make up for the loss of air and nourishment. The fakirs have hallucinations when hypnosis begins; they hear certain sounds, they see angels, and their faces express a feeling of happiness. But, little by little, consciousness disappears and the body acquires a peculiar rigidity. This is evidently, says the writer, a matter of self-hypnotism in hysterical persons who are sufficiently predisposed to it. This lethargy is looked upon by the people as death, and when the subjects are aroused it is God who has brought them to life. In Greek and Roman literature, says the writer, we may find accounts of persons who have died and returned again to earth. There is nothing astonishing in these facts, for Bouchut, in his treatise on the signs which enable us to recognize real death, reported the case of a woman who had been disinterred in order that a friend might look at her again. She was found to be alive, and she lived for many years afterward. Also in the Department of the North there was a case reported of a girl who had remained in a lethargic condition for several years. She had fallen into this condition on hearing that she was to be arrested for having committed a crime.

Alopecia areata may be much benefitted by a treatment with acetic acid and scarifications, according to Faivre, in the *Archives Cliniques de Bordeaux*. He ascribes the affection to a micrococcus, and says that by slightly scarifying the surface with the point of a bistoury and painting it with acetic acid a growth of pathogenic staphylococci substitutes the former growth, and recovery ensues. After the slight eschar thus produced has fallen off, a growth of natural hair follows, unless the trouble is complicated with a destructive folliculitis, or it proves to be the decalvant form, which resists all treatment and is probably of tropho-neurotic origin. It may be necessary to repeat the operation every day for a month, or more. Rigorous antiseptic precautions should be taken to prepare for the scarifications, and to prevent the spread of the affection in all its stages.

Some pediatrical dont's of great value are given by Dr. W. A. Newman Dorland in *Medical Progress*. Among them we find these:

Don't fall into the habit of ascribing the mother's fears and anxieties to an hysterical tendency which it is your duty to ignore. Listen to her, and profit by her suggestions.

Don't indulge in any sudden or violent movements while examining infants. Undue fright will thus be avoided.

Don't forget that the respiratory sounds, especially the inspiratory, are normally full and harsh in childhood. Hence the term "puerile" respiration.

Don't make a diagnosis of pulmonary cavity from the presence of the "cracked pot sound" in children. This sound may be elicited in pleurisy and pneumonia as well.

Don't forget that tubercular disease of the peritoneum and mesenteric glands is a frequent occurrence in early childhood and is usually indicated by great prominence of the abdomen.

Don't forget that the liver is relatively large in young children, and prominent below the ribs, even when there is no diseased condition present.

Don't diagnose the presence of intestinal parasites until one or more of the worms have been seen.

Don't fail to administer a purge of castor oil on the first appearance of greenish-colored stools. Especially do this if the season be hot and sultry.

Don't fail to suspect the onset of some grave disorder—scarlatina, pneumonia, or meningitis—whenever there is persistent vomiting.

Don't permit a woman suffering from grave constitutional disease—tuberculosis or syphilis—to nurse her child.

Don't permit a woman who has become pregnant to continue nursing her infant.

Don't wean a child until after the twelfth month, if possible to avoid doing so.

Don't permit a child to nurse from the breast after the eighteenth month.

Don't wean a child during the summer season, unless absolutely unavoidable.

Don't give a baby which must be raised artificially food preparations containing starch or its derivatives, glucose and dextrine.

Don't be alarmed at the great rapidity of the pulse. Any undue excitement or prolonged crying, or any slight febrile excitation will give rise to a pulse out of all proportion to the gravity of the general condition. A rapid pulse during sleep, however, is of more grave significance.

Don't designate the symptoms of rheumatism by the popular term "growing pains." Serious heart disease in its earliest stage may thus be overlooked.

Don't forget that tubercular meningitis is usually preceded for weeks or months by a gradual but progressive loss of flesh.

Don't mistake the relatively greater development of the head in proportion to the shoulders for a commencing hydrocephalus. It is the natural condition in the early weeks of infancy.

Don't forget that the pain of commencing coxalgia is first complained of usually in the knee of the affected side.

Don't mistake the normal breath sounds which are heard in auscultating the fontanelles for the bruit which may be indicative of commencing disease, hydrocephalus or rickets.

Don't forget that inability to speak, inability to walk, and other evidences of backwardness in children, may be due to some form of mental disorder, either idiocy or imbecility.

Don't forget to examine the urine frequently throughout the stadium of scarlet fever. Nephritis is a common sequel to this disease, and its onset must be watched with jealous care.

Don't vaccinate an infant while it is suffering from eczema or tooth rash.

Don't order large amounts of medicine. One or two ounces of the preparation will generally suffice.

Don't fail to remember that success in pediatrical practice necessarily depends largely upon acuteness of observation.

The liability to prosecution for damages in abdominal surgery was recently discussed in the New York *Medical Journal* by Dr. Cyrus A. Kirkley, of Toledo. He said that the average juryman looked upon the medical expert as a witness having a bias for the side calling him. After setting forth the reasons for a reform in the matter of medical expert testimony, he commended the plan adopted in England of having all the medical witnesses of both sides confer together before giving their testimony, and suggested that if the court were to appoint a medical commission to hear and pass upon the medical points involved, some of the present abuses would be avoided. He also quoted a legal opinion to the effect that a surgeon, operating in an emergency by abdominal section upon a patient who had no chance for life without such operation, should not be liable in damages if this view of the urgency of the case were concurred in by other well-qualified practitioners.

Hypnotism has its use in pediatrics also, according to Dr. Berillon. In the St. Louis *Medical and Surgical Journal* he states that the diseases of children in which the value of hypnotic suggestion is well-established may be divided as follows: Psychic troubles occurring in the course of acute disease, particularly insomnia, agitation and nocturnal delirium; some functional troubles, such as uncontrollable vomiting, incontinence of urine or of fæces, which may occur in the course of the same disease; functional difficulties concomitant with nervous affections, chorea, tics, convulsions, anesthesia, hysterical contractions and paresis, hysterical hiccough, blepharospasm, nocturnal incontinence of urine; also psychic troubles, such as irresistible onanism, onychophagia, precocious impulsive tendencies, nocturnal terrors, somnolence, kleptomania, pusillanimity and the manifestations of morbid emotions which are most often found associated, and which are regarded justly as stigmata of mental degeneration; also mental troubles which may be considered as complications of various neuroses (chorea, hysteria, epilepsy). The fact, however, should not be forgotten that hypnotism in children may produce decidedly disastrous effects, especially if frequently repeated. Suggestion even is far more potent than in adults under certain circumstances, and furthermore, both hypnotism and suggestion predispose to auto-suggestion of a pernicious type. This should lead to caution, especially when the epidemic neurotic tendencies of children are remembered. These frequently produce psychoses.

A simple and reliable test for posterior urethritis is given by the *Medical Brief*. The article says: The extension of a urethritis to the posterior or deep urethra, that portion lying behind the triangular ligament and including the membranous and prostatic urethra, generally occurs about the latter part of the third or during the fourth week of the disease, and is denoted by a well-marked train of symptoms, as follows: A feeling of heat and discomfort in the perineal region, frequent and precipitate urination accompanied by tenesmus and discomfort after urinating, and frequently, when disease is very acute, we will find more or less blood in the last few drops of the urine. We may also notice increased sexual irritability, particularly if the seminal vesicles become involved, denoted by frequent and prolonged erections and involuntary emissions. In such cases, if we request the patient to pass his urine in two glasses, that in the first glass will show the urine as it comes from the bladder, plus the washings of the whole urethra, that in the second the urine of the bladder plus what has drained back into it from the posterior urethra. Therefore if this second urine contains pus, we know that it must be the result of posterior urethritis (in the absence of previous disease of the kidneys or bladder), and in most cases this will prove a very simple and reliable test.

Abortion has been caused by the use of guaiacol, and hence much care should be used in prescribing this drug for pregnant women. Dr. J. Petrasko (*Centralblatt Medicin*) reports the case of a woman, twenty-nine years old, three months pregnant, who had an infiltration of the apex of the left lung, for which she was given infusion of senega, also three-quarters of a grain of pure guaiacol every morning and noon. On the eighth day, when she had received in all twelve grains of guaiacol, abortion took place, and it could not be otherwise accounted for than as having been due to the drug. It is remarked that phenol and its derivatives exert a paralyzing action on the vaso-motor centres, so that they may produce abortion by causing defective

nutrition of the fetus. It is added that the patient was of a nervous nature and may have had an idiosyncrasy for guaiacol.

Potassium nitrate gives excellent results in burns of whatever degree when administered in baths or in application of compresses that have been wet with the salt, or in lotions that contain the nitrate. According to M. Poggi, in *Revue Medicale*, the nitrate acts especially as a refrigerant. As it becomes dissolved in the water it produces a notable lowering of the temperature of the liquid of from 5° to 9° F. If a burned hand or foot is plunged into a basin of water, to which a few spoonfuls of the nitrate have been added, the pain ceases rapidly; if the water becomes slightly heated, the pain returns, but it is allayed as soon as a fresh quantity of the salt is added. This bath, which is prolonged from two to three hours, may bring about the definitive disappearance of the pain and even prevent the production of blisters. The application of the compresses also exercises the same influence. By this means the pain is allayed and cicatrization takes place without delay. Another remedy in the treatment of burns is calcined magnesia, which, says the writer, has been employed by M. Vergely, who obtained favorable results with it in burns of the first and second degree. The affected parts are covered with a thick layer of a paste which is prepared by mixing the calcined magnesia with a certain quantity of water. This paste is allowed to dry on the skin, and when it becomes detatched and falls off it is replaced by a fresh application. Very soon after the paste is applied the pain ceases, and under the protective covering formed by the magnesia the wounds recover without leaving the cutaneous pigmentation which is so often observed to follow burns that have been allowed to remain exposed to the air.

The use of mercuric bichloride promises well in cerebro spinal meningitis, according to Consalvi in *La Semaine Medicale*. He used it hypodermatically, and gives reports of his observation in nine cases occurring during an epidemic of grip at Cassli, Italy. Only one case, that of a girl, aged seven, proved fatal, and in this case there was temporarily an improvement following the injection. The dose varied from .005 milligrams to .01 centigram, according to the age of the patient, administered once in twenty-four hours in the beginning and later once in forty-eight hours. The oldest patient treated was nineteen years, the youngest fourteen months. Most of the symptoms are relieved after the first two or three injections, though muscular rigidity persisted in some cases until after the seventh or eighth injection. In one patient an acute mercurial stomatitis developed after the tenth injection, and in another (both girls) a bloody diarrhea of short duration seemed to be the result of the mercury. Other therapeutic measures employed were leeches, ice, calomel in purgative doses and bromide or morphine to quiet the patient when necessary, with iodide of potassium during convalescence.

The use of mercury in tubercular disease is growing in favor, and a French physician has recently published some valuable observations upon the treatment. The *Practitioner* says he chiefly used the drug in the form of hypodermic injections of corrosive sublimate, and carried out the treatment for many months with regularity. The results described are very remarkable, because they consisted, for example, of the gradual drying-up and disappearance of tubercular glands, and of chronic diseases of the nose and eyes; and in at least one instance, in which a patient with a tubercular family history was evidently suffering from incipient consumption, this method of treatment was followed by speedy improvement, and finally by apparent cure. The treatment will doubtless receive a very careful and extensive trial in this country, although it is at first sight difficult to understand or explain its *rationale*. Mercury is known to be a resolvent of certain forms of new growth, notably those due to a specific cause; but it is, at the same time, so depressing when given in larger or long-continued doses, that it has probably never before been widely employed in the treatment of tubercular diseases. It is a curious illustration of the influence of fashion in therapeutics that, after being terribly abused, and partly falling into discredit for half a century, mercury is now being largely used again, and with the greatest benefit, in many widely different diseases.
